Developing a Comprehensive Marine Debris Strategy for the West Coast Governors' Agreement on Ocean Health:

Proceedings from the Marine Debris Action Coordination Team

Land Based Debris Workshop

San Francisco, California

February 9-11, 2011

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Workshop participants in San Francisco, CA

Introduction: WCGA MD ACT Land Based Debris Workshop

In September 2006, the Governors of Oregon, Washington and California signed the West Coast Governors' Agreement (WCGA) on Ocean Health. Under this agreement, the three states pledged to work together on bold actions to improve the health of our ocean and coastal resources. Marine debris was identified as one of the areas requiring urgent action. A Marine Debris Action Coordination Team (MD ACT), comprised of representatives from the three states and the federal government, non-governmental organizations, Tribes, and industry was established to generate a strategy to address marine debris collaboratively in the three states. The WCGA MD ACT workshop regarding land based debris (LBD) took place from February 9th through 11th, 2011 in San Francisco. The workshop was organized entirely by the ACT itself: ACT members were divided into three teams and each team was responsible for two topics. Topics were discussed and presented by teams in the following order:

1. Data Gathering and Management (Team 1)
2. Reduction (Team 2)
3. Prevention (Team 2)
4. Cleanup (Team 3)
5. Public Education and Outreach (Team 3)
6. Coordination (Team 1)

For each session, designated teams presented background information on their topic followed by a group discussion on programs and ideas that were missing from the presentation. Workshop participants proceeded to make recommendations on what should be included in the tri-state marine debris strategy to fulfill the goals outlined in the WCGA Action Plan. This document summarizes background information based on the presentations, identified gaps, and recommendations made by the ACT members, invited experts and observers.

Overarching Themes

Throughout the workshop, overarching themes and action items applicable to the strategy on LBD were brought up during discussions. There was a strong emphasis on the importance of creating measurable targets that can be achieved through different methods, with the ability to be tracked for effectiveness. Also, relevant and useful information and resources should be shared among entities and easily accessible. Overarching themes included the need for research, education and to address identified gaps.

Research

- Need to investigate and compile research for every topic.
- Need to support current research.
- Identifying baselines are crucial to measure project success as well as determining the current status of LB
- Need for socioeconomic analysis
- If possible there should be coordination among researchers to address the same goals.

Education

An overarching recommendation for the strategy was made to make education a method for action for every topic.

Gaps

In addition to gaps indentified in each section, there were overarching gaps that were discussed. Identifying these gaps will help provide better recommendations for the strategy. Using current methods that are proven to be successful allows the strategy to leverage existing efforts. These gaps include a need to identify:

- Current state legislation on LBD.
- Current management frameworks that address LBD.
- Successful programs and projects that address LBD.

Data Gathering and Management

Team 1: Nir Barnea, Cyreis Schmitt, Jennifer Sevigny, Miho Umezawa, Jamie Doyle, Bridget Hoover

Background Information

The approach the data management team took was sending surveys to Point of Contacts (POCs) in the three states and using the information received for the background presentation. A total of 20 surveys were returned. LBD is different compared to derelict fishing gear (DFG). The biggest difference is that DFG survey and removal is specialized and often costly, whereas LBD can be conducted with less money and anyone can participate. The reoccurring themes throughout the three states were that almost everyone collects data, but there is a wide diversity among data cards and management of the data. There also exists a lack of consistency in data entry and no state wide data sharing. The following tables summarize current LBD data gathering and management conducted by POCs:

Washington LBD Trends

POC	Data collected?	Datasheet?	Purpose?	Software?	Access?	Data storage?
Coast Savers	Y	Based on OC	*internal operational tracking, trends *outreach	on-line custom designed	One skilled person. Available if requested	Internet
OC	Y	OC cards	*part of 25 year dataset *identify trends	On-line OC software	OC. ICC coordinator upload data via internet	Internet and local servers
DNR	Y (specific debris such as creosote logs)	DNR	*Determine MD concentration and best removal effort	Excel and ArcMap	DNR	Server
Chism	Y (measured by volume)	paper and pencil	Determine MD flow rate, trends	Spreadsheet	Self	PC
Garbage Gang	Some. Record # of volunteers and MD weight	OC, when used	Measure trends, outreach (convince people that debris trend is up)	Coast Savers	Coast Savers	Coast Savers
Skagit	Y	Specialized	Document quantities and location, primarily treated wood	Spreadsheet		Server
Soundkeeper	Y	OC	Impact assessment, operational consideration (what equipment for what site	Word	Soundkeepers, public	Server

Oregon LBD Trends

POC	Data collected?	Datasheet?	Purpose?	Software?	Access?	Data storage?
SOLV	Y	OC & SOLV event reporting form	1.educate the public 2. identify litter prevention measures 3.evaluate whether project goals were completed	MS Excel and MS Access	SOLV and Ocean Conservancy; shared with agreement of appropriate use	secure system in-house, and submitted to OC
Dept Environmental Quality	Y (but limited, use data from elsewhere)	N	*Noted that increased tracking data of volume will not get to the answer of how much litter is not collected and ends up running into waterways.*			
Surfrider	Y	OC & Surfrider data card, depending on event	1. Track clean-up event success, 2. identify most common marine debris for targeting education and advocacy	Excel	Chapter leaders and Surfrider staff, have not shared data much in the past, but would likely be willing to do so.	Local chapters within chapters and regionally, but not online. Reports get published, but not raw data.
Department of Transportation	Y (but in a very different format and limited)	Unknown*	Unknown*	Unknown*	Unknown*	Unknown*
RID Patrol	Y (but in a very different format)	Unknown*	Unknown*	Unknown*	Unknown*	Unknown*

California LBD Trends

POC	Data collected?	Datasheet?	Purpose?	Software?	Access?	Data storage?
Save our Shores (SOS)	Y	Developed; In coordination with CCC, HtB, and others	Identifying problematic materials	Excel	Staff, trained docents, interns	Excel
Heal the Bay (HtB)	Y	HtB	Assess type of marine debris, support government action	On-line database software	Public	On-line database
I Love A Clean San Diego (ILACSD)	Y	ILACSD	Asses type of marine debris, determine trend b/t inland and coastal debris, education	On-line database software	Staff	On-line database
CA Surfrider	Y	Varies by Chapter, CCC	Assess type of marine debris	Excel	Staff, executive committee	Excel
CA Coastal Commission (CCC)	Y	Ocean Conservancy (OC), groups debris items by likely source	Identify broad trends	On-line database (OC)	Coordinators of the Cleanup, and those given access	On-line database
Santa Barbara Channelkeeper	Y	SWAMP- Rapid Trash Assessment Protocol	Aid development of water quality protection programs	Excel	Staff	Excel
San Diego Coastkeeper	Y	Based on ICC	Identify trends, support government action	Website onWiki	Staff, core volunteers	Local server

Identified Gaps

State Water Board and Surface Water Ambient Monitoring Program (SWAMP)'s Rapid Trash Protocol: This California program examines the amount and types of trash present in stream channels, the effects of beneficial uses and potential sources of trash. There is data available from this program. The pilot program conducted in 2007 is *A Rapid Trash Assessment Method Applied to Waters of the San Francisco Bay Region: Trash Measurement in Streams* and can be found at http://www.swrcb.ca.gov/rwqcb2/docs/swampthrashreport.pdf,

Research: Several research gaps were addressed. To begin with, there exists scientific research regarding debris in the ocean that is not being picked up on land. Algalita and Project Kasei are two organizations that should be examined. Information can be found at: http://www.algalita.org/index.php and http://www.projectkaisei.org/

Another project to examine is EPA and Ocean Conservancy's National Marine Debris Monitoring Program that trained volunteers to conduct trash cleanups and is statistically valid. There is 10 years worth of data, but the project only uses five years worth of data. The limiting factor for this project is that it did not include cigarette butts in the data and not all regions were included, such as urban areas. The project can be found at http://water.epa.gov/type/oceb/assessmonitor/debris/nmdmp.cfm. Also, protocols for marine debris collection are currently being developed by NOAA.

Port Townsend Marine Science Center at Fort Worden State Park in Washington is currently conducting a nurdles study. This project started in 2006 in collaboration with Algalita Marine Research Foundation and conducts research to learn about the extent of plastic contamination in the Puget Sound region as well as outreach and education. More information can be found at http://www.ptmsc.org/plastics.html.

Data: A data gap discussed was looking into state and federal agencies that issue storm water permits. The issue with municipal water permits is that although people are required to submit annual reports, they are self-monitoring reports and the data is based on what they have collected. Therefore, it does not focus on the ambient environment and the method for collecting data is not standardized. Washington requires National Pollution Discharge Elimination System (NPDES) permits, but does not have litter information for reporting. Information on industrial permits is online in Washington, but the focus is more on water quality such as turbidity and metals, and does not address trash.

Another data gap identified is potential data collected by other state and local agencies such as Department of Transportation and beaches and harbor departments. These agencies may have annual reports that include data on trash.

Recommendations

Specific Data Management Recommendations for the Database include:

- Need for questions to guide data collection and management, and database generation:
  1. What are the questions that the data need to address?
  2. What monitoring program/protocols need to be developed to collect the data?
     a. Database should include: location, quantity, composition, source ID
  3. What database needs to be developed to store and access the data?
     a. Database should provide access to existing databases
     b. Database should enable query
- Identify the main purposes for the database
  - Data collected should help legislation to address marine debris
  - Data collected should provide information for outreach for changing behaviors and advocacy
  - Data collected should facilitate economic analysis by impact of marine debris
- Database to be one standardized DB across the three states
  - Establishment of database standards such as: 1) field protocols 2) data input
  - Compatibility with existing and developing databases
- Data should be easily accessible; DB facilitates assessment of data, lead to information
- Data collection need to be sensitive to seasonal variations
- Data collection and LBD DB output should provide MD density per location (beach segment) over time
- Data collection and analysis should provide information to facilitate prevention, reduction, and cleanup of marine debris
- Data collection should incorporate smart phone apps
- Data collection and management need to maintain quality to preserve data integrity

General Recommendations for the Strategy include:

- The strategy should identify data gaps
  - Storm water annual reports are based on self-monitoring reports and may be inaccurate
  - Not all data is solid
  - Data not standardized
- Standardization of LBD data collection and data cards across the three states
- Linkages to research scientific sources
- The strategy should facilitate the collection of accurate data needed for policy formulation
- Identify an entity that will manage both LBD and DFG data collection and management
- Identify and facilitate best methods to increase data collection from volunteers
  - Train volunteers in data collection
- Empower volunteers through data collection

Reduction Measures

Team 2: Ginny Broadhurst, Cyrilla Cook, Angela Howe, Scott McMullen, Eben Schwartz

Background Information

Reduction focuses on minimizing trash prior to entering the environment. Marine species are negatively impacted by LBD through various ways including ingestion, entrapment and release of toxic chemicals once ingested. Based on the International Coastal Cleanup Report (2007), the top four most common debris items collected around the world were; 1) cigarettes, 2) food wraps and containers – polystyrene, 3) caps and lids, and 4) plastic bags. All three states are taking steps to reduce trash through legislation, with an emphasis on polystyrene and bag bans.

Polystyrene Bans: Oregon is the leader in implementing polystyrene bans with individual communities and cities adopting bans since 1989. Portland and Multnomah County banned the use of polystyrene foam containers in 1989 and McDonald's discontinued statewide use shortly after. Approximately 48 cities in California have been successful in implementing polystyrene bans in some form within the last decade. Cities and counties that have banned polystyrene include Santa Cruz County, cities in Monterey County, City of Los Angeles, and San Clemente. Starting city by city, Santa Cruz County went entirely Styrofoam free in 2008 and this ordinance bans polystyrene take-out food containers at businesses selling food for immediate consumption. In 2009, Seattle and Edmonds required all food service products designed for one-time use made from polystyrene to be replaced with either compostable or recyclable material. In July 2010, the ban expanded to include plastic utensils and plastic food containers in Seattle. Violating the ban on Styrofoam containers is subject to a civil penalty of up to $250 for each violation. Issaquah also recently passed a similar ban which will take effect starting May 2011. Plastic food containers can be recycled under Washington Department of Ecology's expanded recycling program.

Bag Bans: California is the leader in implementing bag bans with San Francisco being the first city in 2006, followed by Malibu in 2008, Manhattan in 2009 (but in litigation), and Palo Alto (2009). More recently, Los Angeles County implemented a bag ban in 2010, and San Jose, Calabasas, Santa Monica, and Marine County implemented a ban in January 2011. In May 2011, Long Beach also passed a bag ban. These recent ordinances have added a paper bag fee as well as a ban on plastic due to the desire to promote reusable bags as the bag of choice. Several Supermarket chains offer plastic bag recycling and large retailers offer 5 cent credit or other premiums for bringing a reusable bag. In Washington, Edmonds was successful in imposing a plastic bag ban and Bellingham may also try for a bag ban. Seattle also successfully imposed a 20 cent fee on single-use plastic bags in 2009, only to have the American Chemistry Council sponsor an effort to have a voter proposition overturn the fee.

In California, despite the failure of AB 1998, in 2010 of the statewide legislation to ban plastic bags, another bill will most likely be introduced this year. Statewide marine debris legislation and advocacy is supported by the Clean Seas Coalition. Humboldt, Marine County, San Rafael, Sunnyvale, Santa Clara County, Ventura, Los Angeles City, and Calabasas among other cities are currently working to ban plastic bags.

Other Reduction Efforts: Washington's Beyond Waste program supported by the Department of Ecology is a 30 year plan aimed to eliminate wastes and toxics when possible and use remainder as resources. Some milestones include; manufacturer-funded program to recycle electronics, passing a Chemical Action Plan for PBDE flame-retardants and legislation, implementing Mercury Chemical Action Plan, and businesses reducing by 50 percent amount of recurrent hazardous waste they generate. More information can be found at http://www.ecy.wa.gov/beyondwaste/.

Oregon's law, ORS 468B.025 prohibits activities that "cause pollution of any waters of the state or place or cause to be placed any wastes in a location where such wastes are likely to escape or be carried into the waters of the state by any means". The lack of enforcement is the biggest issue of this law.

In California, Paint stewardship Bill 1343 by Huffman passed in 2010 as well as carpet recycling (AB 2398) and reducing copper in brake pads (SB 346). Also, through the California Product Stewardship Council's efforts, there will likely be Extended Producer Responsibility legislation introduced in California this year that at a minimum will cover sharps, batteries, and mercury containing lamps.

Identified Gaps

There is a need to identify alternative materials to single-use plastic. Currently, there is no readily available plastic that is marine biodegradable. Furthermore, there needs to be research conducted on alternatives to ensure that they are not the same or worse than plastic. A list of product alternatives, the science and a cost-benefit analysis should be included when promoting plastic alternatives. Also, there is need to compile data and studies regarding the status of plastic bags, release and impact on oceans. An economic evaluation of cost saving of reducing plastic bags into environment would be useful. Another gap is identifying the components that make a successful ban. Furthermore, a better understanding of bans is needed to ensure successful implementation. California has started making headway regarding these gaps and should be looked into. This is included as a recommendation.

Recommendations

- Adopt a plastic pellet law nationally or in WA and OR, for BMPs for manufacturing "good housekeeping". California's AB 258 could be used as model.
- Create target reductions for MD (plastic pollution)
- Recommend comprehensive bag ban across West Coast including fee on other single use bags.
- Create an executive order for procurement of certain products such as water bottles. An example of this was done in New York.
- Establish guidance for landfill cover (BMP) regulation/requirements.
- Take opportunities during critical habitat designations to advance MD recommendations.
- Create a resolution for target reductions for MD (plastic pollution).

    - Possibility includes creating a Governor's MOU. The 3 main recommendations from California's Plan can be used as models. All three combined or parts of the recommendation can be used. These include:
        1. Implement Extended Producer Responsibility for packing waste
        2. Bans items that are likely to become marine debris for which alternatives are readily available
        3. Place a fee on items that are likely to become marine debris for which alternatives are not readily available
- Institute long term zero waste goal
- Work with large companies that can influence packaging to consider MD requirements.
    - Implement stewardship certifications (ex. Energy star, MSC).
- Support goal to eliminate presence of cigarette butts
- Work with ACT groups to implement a carbon tax similar to climate change legislation
- Encourage controlled studies linking chemical components of MD on species to ecological damage.
- Research to prioritize and identify MD issues and data gaps
- Collate and make accessible in one place scientific investigations of important aspects of marine resources (This could be a linkage to the database).
    - Add lit review compiling of alternatives and cost analysis of savings
- Conduct study of cost/benefits of alternatives.
    - This data limited; an option may be to enlist graduate students
- Compile examples of successful legislation on reducing trash from other states and countries that could be applied to the Strategy.

Prevention Measures

Team 2: Ginny Broadhurst, Cyrilla Cook, Angela Howe, Scott McMullen, Eben Schwartz

Background Information

Plastics and other solid wastes become marine debris in several ways. Some examples include stormwater discharge, combined sewer overflows, beach visitors, industrial activities, illegal dumping and littering, solid waste disposal and landfills materials such as garbage and medical waste. The aim is to reduce or prevent LBD at all spots. Prevention of land based debris is addressed through stormwater/municipal sewage programs, state legislation, voluntary programs, education and other methods. A need was identified to determine how effective current prevention measures are at targeting LBD.

Washington: LBD is regulated by the Washington State Department of Ecology under Chapter 70, 95, RCW- solid waste management, and Chapter 173-351, WAC-handling standards. Most LDB is defined as solid waste and the local agency such as local health departments are responsible for distributing solid waste permits. Regarding stormwater regulations,

The Waste Reduction, Recycling and Model Litter Control Act (WRRMLCA) enacted in 1971 is the primary law that guides and directs litter programs. Concerned over the increase in litter,

recommendations from the WRRMLCA formed the basis of the 1998 Litter Act. This Act puts Ecology in a leadership role overseeing funds, coordinating cleanups and implementing education and outreach programs.

Many organizations and groups participate in volunteer cleanup efforts. Participants range from NGOs, universities, local agencies, Northwest Straits Commission, Marine Resources Committees, and diving groups. There is currently no comprehensive tracking system of trash.

Oregon: Oregon's stormwater systems' technologies to remove plastics vary among municipalities from low to high and there is no statewide standard. There is currently a large effort on street sweepers to intercept trash before stormwater enters municipal stormwater systems. Sanitation workers say a portion of the plastics in the stormwater system comes from home garbage cans tipping over during winter storms or due to wind.

In 1971, Oregon was the first in the nation to adopt a Bottle Bill. The Bill was modified in 2007 to include water bottles and return rates average about 90%. Containers that used to make up 40% of roadside litter now average about 6%. Unfortunately, the Bill is starting to lose its effectiveness with recycling rates reducing from 10 years ago. This may due to inflation as the redemption payment has not kept up; five cents in 1971 equates to 26 cents in 2008, but citizens are currently not receiving as much. Another reason may be that some beverages such as teas are not included in the Bill.

SOLV and Adopt-A-Highway are examples of two successful cleanup programs in Oregon. SOLV started in 1984 and coordinates beach and inland volunteer clean ups. They also lead state-wide cleanups in the fall and spring. The Adopt-A-Highway program was created by the Oregon Department of Transportation (ODOT) in 1991 and cleans the highway in usually two mile minimum segments. Volunteers are required to commit one year and four cleanup activities.

Oregon has a Litter Law under ORS 165.775 which prohibits "any person to discard any glass, cans or other trash, rubbish, debris or litter on land within 100 yards of any of the waters of the state…", but there is not a significant level of enforcement and fines are inconsistent. Also, there are laws that require opportunities to recycle for cities with a population of 4,000 or more people.

California: Regarding stormwater regulations, the State Water Resources Control Board has regulatory authority for protecting water quality in California. In Southern California, several zero trash total maximum daily loads (TMDL) regulations have been implemented zero trash allowed for impaired water bodies under the 303 (d) listing. NPDES permits in Phase 1 discharges now have permit requirements similar to the southern California Trash TMDL. There is also a statewide trash policy in the development phase that seeks to establish similar policy as that adopted by the San Francisco Bay region for the entire state. Los Angeles also includes a zero floating material and solid, suspended, or settable material objective in their water quality control plan. There is currently no significant enforcement effort underway on any of these programs, but they are

anticipated to increase once policies are better established. Furthermore, in 2007, AB 258 was enacted to control plastic production facilities and the release of pre-production plastic pellet and powders. This law also enables a task force to perform inspections, enforce best management practices at production facilities and levy fines.

The Bottle Bill Recycling Program was enacted in 1987 and 230 billion glass, aluminum and plastic beverage bottles haven been recycled since the program's inception. Efforts to expand the Bill to include other recyclable materials are in development, but have stalled in state legislation.

Several California beaches have adequate reception facilities through support from programs such as CalRecycles and Keep California Beautiful. CalRecycle has a local assistance program that supports local trash and recycling facilities. Keep California Beautiful works with industries to provide recycling and trash reception at state parks and highway rest stops. There are several pilot projects aimed to encourage smokers to dispose cigarette butts properly.

There exist little focused enforcement efforts as well as actual enforcement. Caltrans and the California Highway Patrol (CHP) run four annual days in which they promote messaging to reduce trash and focus their efforts on ticketing litterers. In general, existing litter laws are up to $1,000 for a first violation, with fines doubling for each subsequent violation, but there is little enforcement and tickets are rarely given out.

The only statewide effort at litter prevention is Caltrans' "Don't Trash California" campaign. Ads run on TV, Radio, Movie Theaters, and in print. More information can be found at http://www.donttrashcalifornia.info/.

Recommendations

- Create a prevention plan for spills that would hold major producers of marine debris responsible to generate funds for cleanup through producer surcharges
- Track and support CA development of trash policy for stormwater and explore using it as model for the entire West Coast.
    - Support statewide trash policy in CA.
    - Research opportunities to establish similar state policies in WA and OR (regulatory framework).
- Each state work on getting impaired water bodies list.
- Develop model language for MS4 permit in WA and OR.
    - Strengthen language around trash management in stormwater permits.
    - Coordinate with local agencies to make sure model language used in permits.
- Work with state and municipals stormwater programs to implement controls (even if not regulated).
- Use grant requirements to support trash reduction.
    - Broaden NOAA MD grants to incorporate more LBD projects.
- Use trash-reducing incentives in permitting.

- Develop or expand BMPs for litter management on beaches.
- Model language for contracts with waste haulers and franchise associations.
- Coordinate with local businesses/agencies to make sure model language is used in permits.
- Work with states to prioritize enforcement of litter laws.
    - Promote enforcement tied to MD prone priority items.
    - Educate enforcement and courts personnel regarding MD.
    - Identify where the money from enforcement is going.
- Establish 1-800 phone # to catch litterers (use license plate number). Increase social pressure and add facts to letters to educate people.
- Text based reporting on littering.
- Recommend cover load ordinance across all three states.
- Encourage states to engage their population in litter prevention through incentive programs.
    - Promote contest for cleanest beaches.
    - Ex. Neighborhood challenges- City of Seattle.
- Identify hotspots for targeted prevention efforts.
- Governors hold press conferences about what we need to do regarding MD prevention
- Look into expanding redemption (based on priority items; use redemptions as a tool in toolbox).
- Require/Encourage smoking receptacles in front of restaurants.
- "Leash your lid" legislation.
- Consider tri-state legislation for banning smoking on beaches.
- Consider framework for EPR legislation.
- Require best technology available for catch basins/stormwater control
- Gather and report information to emphasize cost effectiveness of prevention (upstream control)
- Adopt a plastic pellet law for BMPS for manufacturing
- Identify target reductions for prevention

Cleanup

Team 3: Sarah Sikich, Fran Recht, Kirsten Gilardi, Mile DeSota, Cyreis Schmitt

Background Information: Many of the programs and legislation identified in this section are described in more detail under reduction and prevention measures.

Washington

Current Programs: There are numerous programs that focus on cleanup including:

- Ecology Youth Corps
- Adopt-A-Highway
- Washington DOT
- Community Litter Cleanup Program (Department of Ecology)
- Community Service and work crews (Department of Corrections)
- Correctional Camps Program (Department of Natural Resources)
- Volunteer Program
- Operation Shore Patrol
- Washington CoastSavers

Existing Laws: Existing laws include the Waste Reduction, Recycling and Model Litter Control Act (see Prevention section), Litterbag in Vehicle Law, and Local Zero Waste and Recycling/Composting Ordinances. The Litterbag in Vehicle Law imposes a $95 fine for failing to have a litterbag in your vehicle or watercraft. This law was repealed in 2003. Also, cities and counties have local ordinances dealing with zero waste, recycling and composting. For example, in January 2010, Seattle City Council passed Resolution 31169 which calls on the state of Washington to provide a Do Not Mail registry to minimize the volume of unwanted direct mail delivered to Washington residents.

Partners: Government and non-government partners include:

Government Organizations:

- WA Department of Ecology
- WA Department of Corrections
- WA Department of Transportation
- WA Department of Natural Resources
- WA Parks and Recreation

Non Government Organizations

- WA Clean Coast Alliance: informal committee of representatives from the Clallam Bay-Sekiu Lions Club, Discover Your Northwest, Grass Roots Garbage Gang, Ocean Companies, Olympic Coast National Marine Sanctuary, Olympic National Park, and the Washington State Parks and Recreation Commission.
- Pacific Northwest Four Wheel Drive Association: member of Clean Coast Alliance
- Grass Roots Garbage Gang: Targets fireworks; member of Clean Coast Alliance

Oregon

Current Programs:

- Beach cleanups: Conducted twice a year and river cleanups are now on the same day as fall cleanup
- Adopt- A-Highway
- Adopt-A-River
- Timber land dumpsite trash removal

Existing Laws: Oregon has various laws and city ordinances dealing with litter. There is no statewide litter control hotline and complaints are made to County and City authorities. A plastic bag ban is currently in legislation and has been implemented in one coastal community.

Partners: Partnerships exists between non-profit SOLV and state partners; Marine Board with the help of local groups and corporate sponsors. Another partnership is between the Oregon DOT and local groups.

California

Current Programs:

- California Coastal Cleanup Day: The California Coastal Commission coordinates this event and takes place on the same day ICC.
- Adopt-A-Beach: California Coastal Commissions' year round beach cleanup program.

- Local programs
    - Environmental NGOs
    - Local governments
- Caltrans freeway cleanups
- Adopt-A-Highway

Existing Laws:

- California litter laws
- California Redemption Value
- Clean Water Act: TMDLs
- Local ordinances
    - Bans on specific items
    - Recycling programs

Partners:

- Clean Seas Coalition: A group of environmentalists, scientists, California lawmakers, students, and community leaders pushing California to strengthen laws reducing trash in California's seas and on beaches. Lt. Governor John Garamendi formed the "Clean Seas Coalition" to make the Ocean Protection Council's pollution reduction recommendations a reality. More information can be found at: http://www.cleanseascoalition.org/
- Green Cities Coalition: Compiles resources for environmental policies and Best practices that can be used and modified within to fit different jurisdictions. More information can be found at: http://www.greencitiescalifornia.org/
- NGOs and general public

Recommendations

- Cleanup programs work actively with corporate sponsors to improve their practices.
- Encourage BYO cleanups: waste minimization and generation at events.
- States and federal agencies provide funding to groups such as volunteer liability coverage.
- Funding for administration of groups coordinating cleanup programs.
    - Get Governor's support.
    - Encourage states to support for cleanup events (ex. monetary support).
    - Grants/additional sources – lottery system?
    - Connection to database: collect data a certain way and receive money.
    - Local governments: discounted parking rates/waive parking fees.
- Track volunteer hours to assess value and effort required for cleanups.
    - Economic data collection of volunteer costs.
- Consider programs for LBD that are similar DFG (ex. Fishing for Energy Program).
- Government sponsored cleanups that encourage mayors to emphasize a season for cleanup.
- Partnerships with chamber of commerce.
- Outreach to local communities and agencies about the many benefits of cleanups, including water quality, safety, etc. Watershed (land/sea, urban/coastal) connection.
- Ensure that tools resulting from the strategy are accessible by all groups.

- Cleanup website with computer calendar of events by zip code.
- Provide leadership and support for cleanup as a prevention and education method.
- Continue to support and fund organized cleanup events.

Public Education & Outreach

Team 3: Sarah Sikich, Fran Recht, Kirsten Gilardi, Mile DeSota, Cyreis Schmitt
Background Information: For all three states, many agencies, NGOs and education facilities conduct education in outreach as discussed in more detail in the previous sections.

Identified Gaps

There is need to create a uniform message and methods for disseminating information. COMPASS (Communication Partnership for Science and the Sea) is an example of an organization dedicated to helping ocean scientists connect themselves and their science to the wider world. By giving scientists the communication tools they need, and by bridging the worlds of science, journalism and policy, COMPASS works to ensure that ocean science is better understood and used by society. More information can be found at http://www.compassonline.org/.

In Washington, the Department of Ecology conducted extensive research on why people litter. More information on this campaign can be found at: http://www.litter.wa.gov/campaign.html.

Recommendations

- Encourage cleanups groups to prioritize education as part of program.
    - Long-term education in particular, continuing education: bring data back to classroom (ex. Use for math exercises, etc).
- Start at a young age.
- Emphasize use of current technology/ social media.
- Outreach should be local; what they care about (ex. Animals)
- Capture contact information and maintain contact.
- Importance of accurate information and disseminating this information.
- Importance of defining target audience.
- Emphasize constantly expanding audience.
- Collaborate with experts.
- Alliance as unifying body for coordination on outreach and education with consistent messaging.
- Direct Department of Education in different states to consult with Education and the Environment Initiative (EEI) in CA.
- Outreach should tie in with Ocean Awareness and Literacy ("Education") OALACT
    - Facilitate opportunities for including MD information in curriculums.
- Collaborate with pro and college sport teams to get messages out (ex. Show videos as games).
- Figure out outreach methods to give to Governors.

- Support NGOs in public outreach and education efforts, and support universities to supply facts and research.
- Share education and outreach resources array with partners.
- Look at what is needed, and then identify outreach and education to target other actions.
- Need better phrase for MD terminology.
- Where database shows specific problem, conduct education and outreach to industry.

Coordination

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Background Information

The approach the team took was sending surveys to Point of Contacts (POCs) in the three states and used the information received for the background presentation. A total of 20 surveys were returned. International Coastal Cleanup (ICC) Day organized by Ocean Conservancy is the cleanup event with the most coordination among organizations. Within all states, there exists some coordination from organizations within their community as lead entities working with schools, businesses and other organizations. Overall, there is minimal coordination among the three states and increased coordination will benefits the states through reducing duplicative efforts and increasing efficiency.

Washington: Washington is the only state among the three states that has a single agency – Washington Department of Fish and Wildlife - with a vested authority to address marine debris and coordinate with local, state and federal entities. Coordination varies from large NGOs to individual citizens; there are various alliances and committees that work with agencies, NGOs, businesses and volunteers. Several entities such as WA Clean Coast Alliance, Ocean Conservancy and Marine Resource Committee coordinate well internally, but there is little coordination among WA different entities involved in LBD cleanup and monitoring.

Oregon: SOLV, OR Surfrider and Ocean Conservancy coordinate with each other, but the majority of coordination is done internally. SOLV coordination is extensive and works with many groups across the state and provides support and funding. SOLV is supported by the state and also works with several state agencies to conduct local river and beach cleanup throughout the year. OR Department of Environmental Quality, RID Patrol, and DOT are examples of agencies that coordinate internally.

California: The majority of organizations that conduct cleanup events coordinate with the California Coastal Commission through Coastal Cleanup Day and/or the Adopt-A-Beach program. The Waterkeepers Alliance and Surfrider Foundation in California and elsewhere are models of coordination within groups, but coordination among the various groups in CA that address LBD can be improved.

Recommendations

- Need to coordinate across government, NGOs and other sectors.
- Need to have federal agencies involved in state coordination.
- Need for state level coordination beyond cleanups.
- Seek improved coordination for cleanup, reduction and prevention activities.
- Consider mechanism to require state and fed agencies to coordinate with and report to Alliance; include specific reduction targets.
- Focus on added value to all participants.
- Mechanism may be different in each state.
- Need coordination goals (ex. Data, cleanup sites, research, training, communication, reduced duplication, analyze to identify reduction goals).
    - Different models for different goals.
- Cross-cutting coordination at all levels including government and NGOs.
- Driver need to be MD reduction with specific goals and timeline.
- Coordinate role of federal funding.
    - Tell states they can take lead; empowerment.
- Make MD priority for discretionary funds.
- Use group to create strong proposal (cooperative grant funding, contract proposals)
- Cross-cutting budget among agencies in Alliance (agency action plans)
- Involve NMFS and other federal activities that relates to MD.
- Implementation of consistent priorities.
- Support coordination between various tri-state cleanups.
- Use SOLV as model for coordinating cleanups.